

Appl. No. 10/708,640
Amdt. dated March 23, 2006
Reply to Office action of January 23, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

5 1-8. (cancelled)

9. (original) A thin-film transistor comprising:

a substrate;

10 a semiconductor layer positioned on the substrate, the semiconductor layer comprising a channel region, two lightly doped drains, a source and a drain;

an insulating layer positioned on the semiconductor layer; and

15 a gate positioned on the insulating layer, the gate comprising a gate edge overlapped with the lightly doped drain adjacent to the drain, the gate being not overlapped with the junction between the lightly doped drain and the drain, and the gate being not overlapped with the drain.

20 10. (original) The thin-film transistor of claim 9 wherein the gate comprises another gate edge overlapped with the lightly doped drain adjacent to the source, but the gate is not overlapped with the junction between the lightly doped drain and the source, and the gate is not overlapped with the source.

11. (original) The thin-film transistor of claim 9 wherein the substrate

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comprises a glass substrate.

12. (original) The thin-film transistor of claim 9 wherein the gate
comprises a length A, the channel region comprises a length B, the lightly
5 doped drain adjacent to the drain comprise a length C, and a correlation
among these lengths is as following: $B+0.2C \leq 0.5A \leq B+0.8C$.

13. (original) The thin-film transistor of claim 9 wherein the lightly doped
drains have an equal length.

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14. (original) The thin-film transistor of claim 9 wherein a length of the
lightly doped drains is approximately between $0.3-3.5 \mu\text{m}$.

15. (original) The thin-film transistor of claim 9 wherein the lightly doped
15 drains are symmetrically arranged with respect to the gate.